## P.U.R.E. Research Plan Form

### Mentee Information

Name: Devaraj Tripasuri  
Date: 02/18/2015  
NetID: tripasu2  
Email: tripasu2@illinois.edu  
Year (F, S, J, Sr): F  
Major: Computer Science

### Mentor Information

Name: Shubhra Kanti Karmaker Santu  
Date: 02/18/2015  
NetID: karmake2  
Email: karmake2@illinois.edu  
Department: Computer Science  
Faculty Advisor: Cheng(Xiang) Zhai

### Spring 2015 Research Plan

1.) Write a brief outline of your research plan:

1) Develop a database of diseases to select potential diseases from.
2) Develop an algorithm that takes the symptoms of the patient and compares it to the symptoms of potential diseases and builds a vector to compare likely diseases.
3) Develop an algorithm to find symptoms from the natural language of patient.
4) If more than two possibilities exist, find a potential question that will eliminate the most options.

2.) What do you hope to learn and achieve by the end of the semester?

I hope to gain a nice thorough understanding of programming and its concepts. More importantly, I hope to learn more about data science and machine learning and confirm if I want to specialize in these fields.

Mentee Signature: [Signature]  
Date: 02/20/15  
Mentor Signature: [Signature]  
Date: 02/20/15